

# TEXAS DEPARTMENT OF INSURANCE

Engineering Services Program / MC 103-3A 333 Guadalupe Street P.O. Box 149104 Austin, Texas 78714-9104  
Phone No. (512) 322-2212 Fax No. (512) 463-6693

---

## PRODUCT EVALUATION

SHU-214

Effective July 1, 2013

*The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation **May 2015**.*

*This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.*

*This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code and the Texas Engineering Practice Act.*

**Maestroshield Aluminum Roll-Up Shutters**, manufactured by

**Town & Country Industries**  
**400 West McNab Road**  
**Fort Lauderdale, Florida 33309**  
**Telephone: (954) 970-9999**

will be accepted for use in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with this product evaluation and the approved drawings that are referenced in this evaluation report.

## PRODUCT DESCRIPTION

The roll-up shutters are manufactured of extruded aluminum and are assembled using extruded aluminum interlocking slats. Shutters may be constructed with storm bars or with mullions to increase the overall width of the shutter. The shutters may be wall mounted, interior mounted, or built-out mounted. The shutters shall be installed in accordance with design drawings referenced in this evaluation report.

## LIMITATIONS

### Design Drawings:

- "Maestroshield Aluminum Roll-Up Shutter with End Retention or Non-End Retention Slats and Rails," manufactured by Town and Country Industries, Drawing No. 13-TCM-02a, Sheets 1–17 of 17, dated May 30, 2013, signed, sealed, and dated May 30, 2013 by Frank L. Bennardo, P.E.. The stated drawings will be referred to as approved drawings in this report.
- "Aluminum Storm Bars, Headers and Mullions Addendum Installation Instructions for Maestroshield Roll-Up Shutter," manufactured by Town and Country Industries, Drawing No. 13-TCM-02b, Sheets 1–15 of 15, dated May 30, 2013, signed, sealed, and dated May 30, 2013 by Frank L. Bennardo, P.E.. The stated drawings will be referred to as approved drawings in this report.

**Roll-up Shutter Configurations:** The roll-up shutters may be installed as single span units or as multi-span assemblies using storm bars and mullions. Refer to the approved drawings for the specific types of configurations.

**Mounting Conditions:** The roll-up shutters may be wall mounted, interior mounted, or built-out mounted. Refer to the approved drawings for specific mounting conditions.

**Wall Construction:** The rolling doors may be mounted to the following types of wall framing:

- Pre-cast concrete, cast-in-place concrete)
- Grout-filled concrete masonry units (CMU)
- Hollow concrete masonry units (CMU)
- Wood (minimum Spruce-Pine-Fir dimension lumber).

**Allowable Design Pressure:** The allowable design pressure is a function of slat span, end retention, mounting condition, anchors, storm bars, and mullions. Refer to the approved drawings for the allowable design pressure. The maximum allowable design pressure is  $\pm 120$  psf.

**Anchorage:** The roll-up shutters shall be anchored to the structure in accordance with the approved drawings. Anchorage of the roll-up shutters to concrete, grout-filled concrete masonry units (CMU), hollow block CMU, and wood framing shall follow the mounting conditions and fastener options specified on the approved drawings.

**Maximum Span:**

- The maximum allowable slat span for non-end retention shutters without storm bars is 82.1".
- The maximum allowable slat span for end retention shutters without storm bars is 256.5".
- The maximum allowable slat span for double span and triple span assemblies using storm bars and mullions is 82.1".

NOTE: Refer to the approved drawings for allowable slat spans for specific configurations.

**Maximum Height:** The maximum allowable assembly height is 252 inches.

**Minimum Separation from Glass:** The minimum glazing separation is specified in Table 3 and Table 4 on Sheet 1 of 17 of the approved drawings. NOTE: The minimum glazing separation is only required when the roll-up shutters are used in essential facilities as defined in ASCE 7.

**Product Identification:** The roll-up shutter assemblies shall have a manufacturer-produced label that identifies the manufacturer, the name of the product (Eyewall Armour 56mm Roll Shutter 9LB Missile Level D), and compliance with ASTM E 330, ASTM E 1886, and ASTM E 1996.

**Impact Resistance:** This roll-up shutter assembly satisfies the Texas Department of Insurance's criteria for protection from windborne debris in both the **Inland I zone** and the **Seaward zone**. The assembly passed Missile Level D specified in ASTM E 1996. The assembly may be installed at any height on the structure as long as the design pressure rating for the assembly is not exceeded.

## INSTALLATION INSTRUCTIONS

**General Installation Requirements:** The roll-up shutters shall be installed in accordance with the manufacturer's installation instructions, the approved drawings, and this product evaluation report. Copies of the approved drawings shall be available on the jobsite during inspection of the shutter assembly.

**Wall Construction:** The rolling doors may be mounted to the following types of wall framing:

- Pre-cast concrete, cast-in-place concrete)
- Grout-filled concrete masonry units (CMU)
- Hollow concrete masonry units (CMU)
- Wood (minimum Spruce-Pine-Fir dimension lumber).

**Anchorage:** The roll-up shutters shall be anchored to the structure in accordance with the approved drawings. Anchorage of the roll-up shutters to concrete, grout-filled concrete masonry units (CMU), hollow block CMU, and wood framing shall follow the mounting conditions and fastener options specified on the approved drawings.

**Storm Bars and Mullions:** Anchorage and installation requirements for storm bars and for mullions shall be as specified on the approved drawings.

**Note:** The manufacturer's installation instructions and the approved drawings shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC); the International Building Code (IBC); and the Texas Revisions.